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(54) Title: EASILY MODIFIABLE MACRO TAG FOR INTERNET ADVERTISING

(57) Abstract: An improved method and system for providing HTML links to advertisements that facilitates updating the linking mechanism. With the present invention, a web page which is designed to display an advertisement includes a first relatively simple macro tag which provides a link to a first server. When a user's web browser retrieves the first web page, the browser will execute the first link and retrieve a file from the first server. The retrieved file will include the HTML instructions or Javascript required to display the desired advertisement. The user's browser will execute the instructions or script in the retrieved file and appropriately display the advertisement (e.g. a gif-image or Java applet). With this invention it is relatively simple to update the instructions required to display a particular advertisement. Instead of changing the macro tags in each of the web pages which include links to the advertisement, the instructions on how to display the advertisement can be updated by merely updating a single file located on a single server controlled independently of the individual web sites.

Easily Modifiable Macro Tag for Internet Advertising

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Field of the Invention:

The present invention relates to the internet and more particularly to systems and methods for displaying advertisements when web pages are viewed.

Background of the Invention:

Web browsers such as Microsoft's "Internet Explorer™" and Netscape's "Navigator™", provide a mechanism for viewing web pages that are located on the World Wide Web. Such web pages often include advertisements. Such advertisements can be stored as part of a web page; however, typically they are not stored as part of a web page. Instead advertisements are provided by linking to a separate server (i.e. an advertisement server) using a system such as that shown in Figure 1A.

Figure 1A illustrates a system that includes a conventional web site 10, a conventional user site 11 and an advertising server 12. Web site 10 includes a web page 10a. User site 11 includes a display 11a and a web browser 11b, and advertising server 12 includes an advertisement 12a. The web page 11b is illustrated in Figure 1B. It includes a series of HTML (Hyper Text Markup Language) statements and a link statement 10u which has the URL (Uniform Resource Locator) address of advertisement 12a. When browser 10b receives and processes the URL statements in web page 10a, it retrieves and displays the advertisement 12a as directed by the link statement 10u.

While one simple link statement such as 10u might operate satisfactorily for a very simple advertisement, in general in order to properly display relatively complex advertisements in a wide variety of browsers, the number and complexity of the statements needed in web page 10a increases. Furthermore, as new browsers (or more likely new versions of old

browsers) come into use, the statements in web page 10a may need to be modified in order to properly display relatively complex advertisements.

It is noted that while Figure 1 shows a single web site 10 and a single browser 11, in most practical advertising situations there are hundreds if not thousands of web sites that have links to a particular advertisement. In such a situation if one wants to update the links, the HTML statements in each of these hundreds or thousands of web sites would have to be updates.

Summary of the present Invention:

The present invention provides an improved method and system for providing HTML links to advertisements that facilitates updating the linking mechanism. With the present invention, a web page which is designed to display an advertisement includes a first relatively simple macro tag which provides a link to a first server. When a user's web browser retrieves the first web page, the browser will execute the first link and retrieve a file from the first server. The retrieved file will include the HTML instructions or Javascript required to display the desired advertisement. The user's browser will execute the instructions or script in the retrieved file and appropriately display the advertisement (e.g. a gif-image or Java applet).

With this invention it is relatively simple to update the instructions required to display a particular advertisement. Instead of changing the macro tags in each of the web pages which include links to the advertisement, the instructions on how to display the advertisement can be updated by merely updating a single file located on a single server which is independent and separate from the individual web sites.

Brief Description of the Drawings:

Figure 1 is an overall diagram of a prior art system.

Figure 2 is a overall diagram of a first preferred embodiment of the present invention.

Figure 3 is a block flow diagram of the operation of the present invention.

Figures 4A and 4B illustrate the content of a web page which includes a macro tag according to the present invention.

Figure 5 is a block diagram of the operations performed by the instructions in a macro tag which implements the preferred embodiment of the present invention.

Figure 6 is an overall diagram of a second embodiment of the present invention.

Description of Preferred Embodiment:

An overall schematic diagram of a preferred embodiment of the invention is shown in Figure 2. The embodiment includes four computers 20, 21, 22 and 23, that are interconnected via the internet. The data flow between the computers is indicated by the arrows between the various units. It should be understood that from a physical point of view, each of the computers has a conventional connection to an ISP (Internet Service Provider) and the ISP sends addressed messages to and from each of the computers using conventional internet HTTP (Hypertext Transfer Protocol). The arrows in Figure 2 therefore represent logical data flow paths rather than physical connections.

Computer 21 is a conventional computer which has access to the internet. It includes a display 21a and a browser 21b. Browser 21b can be any one of the conventional, commercially available and widely used browser programs such as the Internet Explorer™ browser available from Microsoft Corporation or the Netscape Navigator™ browser available from America On-line Corporation. Computer 20 represents a conventional internet web site which includes a web page 20a that can be accessed via the internet.

It is noted that computer 20 is meant to illustrate a representative web site. Likewise computer 21 is meant to illustrate a representative user's client site. The World Wide Web includes many thousands of user client sites and many web sites such as site 20. A practical commercially viable implementation of the invention would include hundreds if not thousands of web sites 20 which have web pages which have the characteristics described below relative to web page 20a. Thus, user's site 21 and web site 20 are meant to be illustrative of many such sites on the internet.

Computer 22 is a web server that has stored therein advertisements (e.g. a gif-images or Java applets) which are displayed in various web pages when an advertisement is accessed with an appropriate URL. Computer 23 is a web server that includes a Javascript file 23a which can be accessed via an appropriate URL. Computer 23 is referred to as a

command server since it provides commands to browser 21b. It is noted that from a physical point of view, servers 22 and 23 could be implemented in one computer which includes programs that perform all of the functions herein described as being performed by the two servers 22 and 23.

The overall operation of the system is illustrated by the flow chart in Figure 3. The process begins when the user's browser 21b requests web page 20a (block 31). That is, user's browser 21b sends an HTTP request for a web page with the URL address of web page 20a. In response to the request, the web page 20a is sent to browser 21b via the internet (block 33). Upon receipt to the web page the browser 21b will execute the HTML instructions which are in the web page 20a (block 34). The HTML in web page 20a includes a macro tag (which will be described in detail later) which includes a link with the URL address of the Javascript file 23a on web server 23 (block 35). In response to the link request, server 23 sends file 23a to browser 21b. (block 36). Next, the browser 21b executes the Javascript in file 23a (block 37). The Javascript in file 23a (which will be described in detail later) includes a link to the advertisement 22a on server 22 (block 38). In response to the link, the advertisement 22a is sent to browser 21b and displayed on display 21a (block 39).

Figure 4A illustrates the contents of web page 10a. In general page 10a has a series of conventional HTML commands with associated text and images. Of significance to the present invention is the fact that the web page includes a macro tag 41. Figure 4B illustrates the structure of the contents of macro tag 41. The macro tag has two principal parts. There is a Header 42 and a body 43 as is conventional in HTML. The header defines some variables and it also defines a function named "FlycastNoScriptScr()". The body 43 includes a Link 43a to Javascript file 23a, a number of conditional execution statement 43b and a link 43c which is executed if the particular user's browser that is executing the web page does not have the capability of executing Javascript Commands.

It is noted that the term "tag" is a defined term in the HTML standard. In HTML tags are used to identify the major structural components in a document such as headings, lists, and paragraph. As used herein the term "macro tag" is used to mean a series or group of HTML statements that can be inserted into and form part of a HTML document.

Figure 5 is a block diagram that illustrates the structure and content of Javascript file 23a. First a number of variables are set depending upon the type and version of the browser that is executing the file (block 51). Next a special function named "FlycastSuppessError" is defined and executed if a particular type of browser is being user by the user (block 52). A function named "FlycastDeliverAd" is defined (block 53). Finally the advertisement is displayed in response to a number of conditional statements which are dependent upon the type of browser being used by the user (block 54)

The HTML in macro tag 41 is given in attached Appendix A and the Javascript in file 23a is given in attached Appendix B. While the code given in the appendices is self explanatory to those skilled in the art, the following explanation is given to further facilitate an understanding of the code. It should be noted that HTML code is subject to copyright protection. The copyright owner has no objection to the facsimile reproduction by any-one of the patent document or the patent disclosure, as it appears in the Patent and Trademark Office patent file or records, but otherwise reserves all copyright rights whatsoever. Duplication of the copyrighted material as part of a non-patent document is prohibited. Creation of derivative works is prohibited.

The macro tag 41 begins with the definition and setting of two sets of values. The fist set of values is established by the system operator of web site 20. These variable are:

```
FlycastSite     = SITE_NAME
FlycastPage     = PAGE_NAME
FlycastWidth    = 468;
FlycastHeight   = 60;
FlycastNewAd    = true;
```

The first two values specify the site and page identifying the web page 20a for later operations in the program. The next two values establish the size of the advertisement. The variable FlycastNewAd is used to control multiple ads. For example if one page has three advertisements, this is set to "true" or "false" to indicate if the same advertisement is to appear three times or if there are to be three different advertisements on the page.

The second set of values in macro tag 41 are preset by the company that is handling the advertising. They are:

FlycastLoaded = false;
FlycastKeyword = "";
FlycastVersion = 2.0;

The variables FlycastLoaded and FlycastKeyword are used during the execution of the program. The third variable is used to identify the version of the macro tag. Next the function FlycastNoScriptSrc is defined. This function is used to display the advertisement under certain conditions which are explained below.

The body of the HTML is used to display the advertisement in a manner consistent with the particular type of browser that is being utilized by the user. Three major types of browsers are accommodated as follows:

Type 1: Browsers that do not understand Script (i.e. do not support the <SCRIPT>-tag)
Type 2: Browsers that understand Script but which do not understand the SRC attribute which specifies the location of an external script (i.e. do not support the <SCRIPT SRC>-tag).
Type 3: Browsers which understand Script and the SRC attribute.

There are four possible actions that can be taken or executed. The four possible actions are:

Action A: (which is defined in the Javascript file 23a which is named

```
<SCRIPT SRC="http://jeeves.flycast.com/FlycastUniversal/FlycastUniversal.js"
LANGUAGE="JAVASCRIPT"></SCRIPT>
<SCRIPT LANGUAGE="JAVASCRIPT">
```

Action B1:

```
if (FlycastLoaded)    FlycastDeliverAd();
```

Action B2:

```
else                  FlycastNoScriptSrc();
```

Action C:

```
<NOSCRIPT><A target=_top HREF="http://adex3.flycast.com/server
/click/SITE_NAME/PAGE_NAME/123"><IMG SRC="http://adex3.flycast.com/server
/ad/SITE_NAME/PAGE_NAME/123" border=0 width=468
height=60></A></NOSCRIPT>
```

The following table indicates which actions are taken for which type of browsers.

Type of Browser	Type 1	Type 2	Type 3
Action A	No	No	Yes
Action B1	No	No	Yes
Action B2	No	YES	No
Action C	YES	No	No

The Javascript file 23a begins by setting a couple of variables which are used to determine if it has been successfully invoked by the <SCRIPT SRC>-tag. These variables are:

```
FlycastLoaded              = true;
FlycastDeliverAdExecuted   = false;
```

Next some variables are set depending upon what type of browser is being used by the user. These variables are:

```
FlycastFoundMSIE   = navigator.userAgent.indexOf("MSIE") >= 0;
FlycastFoundMSIE2  = navigator.userAgent.indexOf("MSIE2") >= 0 ||
navigator.userAgent.indexOf("MSIE 2") >= 0;
FlycastFoundMSIE3  = navigator.userAgent.indexOf("MSIE 3") >= 0;

FlycastFoundNN     = navigator.userAgent.indexOf("Mozilla/") >= 0 &&
!FlycastFoundMSIE;
FlycastFoundNN2    = navigator.userAgent.indexOf("Mozilla/2.") >= 0 &&
!FlycastFoundMSIE;
FlycastFoundNN3    = navigator.userAgent.indexOf("Mozilla/3.") >= 0 &&
!FlycastFoundMSIE;
```

Next a test is made to determine if the Browser being used is Netscape Version 3. If it is found that the browser is Netscape Version 3, the "windows.onerror" variable is set to a function which reloads the page rather than displaying an error message. The following code performs this operation when it detects a Netscape Version 3 browser.

```
function Flycst SuppressError(){
        window.location.reload();
}
if (FlycastFoundNN3) {
        window.onerror = FlycastSuppressError;
}
```

Next the function FlycastDeliverAd() is defined as follows. It is noted that this function includes code which creates a random number that is used to defeat caching by the browser.

```
function FlycastDeliverAd () {
        if (FlycastDeliverAdExecuted) {
                return;
        }
        FlycastAdServer     = "http://adex3.flycast.com/server ";
        FlycastNow          = new Date();

        //concoct random number to defeat caching
        if (FlycastNewAd) {
                FlycastRandom       = FlycastNow.getTime();
                FlycastRandom       = FlycastRandom % 1000;
        }
```

Next the advertisement is displayed in one of three ways depending upon the characteristics of the browser that is being used. This is accomplished by the following code:

```
//Note: order is important
        if (FlycastFoundMSIE2) {
```

```
                document.write('<A HREF="' + FlycastAdServer + '/click' +
        FlycastSiteInfo + '"><img src="' + FlycastAdServer + '/ad' +  FlycastSiteInfo + '"
        scrolling="no" marginwidth=0 marginheight=0 frameborder=0 vspace=0 hspace=0
        width=' + FlycastWidth + ' height=' + FlycastHeight + '></A>');
            }

            else if (FlycastFoundMSIE3) {
                document.write('<IFRAME SRC="' + FlycastAdServer + '/iframe' +
        FlycastSiteInfo + '" scrolling="no" marginwidth=0 marginheight=0 frameborder=0
        vspace=0 hspace=0 width=' + FlycastWidth + ' height=' + FlycastHeight +
        '></IFRAME>');
            }

            else {
                document.write('<S' + 'CRIPT SRC="' + FlycastAdServer + '/js' +
        FlycastSiteInfo + '" LANGUAGE="JAVASCRIPT"></S' + 'CRIPT>');
            }
            FlycastDeliverAdExecuted    = true;
        }

        //calling a function defined in a <S_CRIPT S_RC=..> from the HTML causes NN3 to
        display the text between <S_CRIPT>..</S_CRIPT>
        if (FlycastFoundNN3 && FlycastPrintTag) {
            FlycastDeliverAd();
        }
```

With the present invention, as new browser versions become available or as when bugs are found in browsers that cause advertisements to be displayed improperly, the Javascript in file 23a can be changed. Changing the macro tag in web page 20a is much more difficult because there are typically many web pages that include the same macro tag as that in web page 20a.

It should be noted that advertisement 22a does not constitute a single fixed advertisement. Advertisement 22a could be a specific fixed advertisement; however, in a typical

commercial system, the particular advertisement 22a which is delivered in response to a request from browser 21b is determined by many factors.

The following two co-pending US patent applications which are assigned to the assignee of the present invention describe systems which determine which particular advertisement to provide in response to a request from a user's browser. The two applications are co-pending application serial number 08/787,979 filed January 22, 1997 entitled "Internet Advertising System" and co-pending application serial number 09/216,206 filed December 18, 1998 entitled "Optimized Internet Advertising Using History to Select Sites": The techniques described in the above referenced applications can be used with the present invention. The entire specification from the above referenced co-pending applications are incorporated herein in their entirety by reference.

An alternative embodiment of the present invention which illustrates another feature of the present invention is shown in Figure 6. With the second embodiment of the invention, the Javascript file 23a-2 includes a link to a second server 61. This second link can be used for a variety of purposes. It is important to note that by incorporating a change into one single file 23a-2 each time a browser initiates a link to any site that has macro tag 41 in a web page, a link will be made to server 61.

One example of how such a function could be used is in order to test new systems. If server 61 were a new replacement for advertising web server 22, it could be tested in a real word internet environment using the technique illustrated in figure 6. Instead of returning an advertisement in response to a call from a browser, in such a system, server 61 would merely return an empty image.

While the invention has been shown and described with respect to preferred embodiments thereof, it should be understood that various other changes in form and detail can be made without departing from the spirit and scope of the invention. The scope of the applicant's invention is limited only by the appended claims.

Appendix A:

```
<!--  Begin Flycast Ad Copyright ©1998 Flycast Communications. -->
<SCRIPT LANGUAGE="JAVASCRIPT">
<!--
/****** following is configured by site ******/
      FlycastSite       = "SITE_NAME";
      FlycastPage       = "PAGE_NAME";
      FlycastWidth      = 468;
      FlycastHeight     = 60;
      FlycastNewAd      = true;     //used for multiple ads

/****** following must not be changed ******/
      FlycastLoaded     = false;
      FlycastKeyword    = ""; //used dynamically by cgi-script for keyword
      FlycastVersion    = 2.0;
      function    FlycastNoScriptSrc() {
            if ((navigator.userAgent.indexOf("Mozilla/2.") >= 0) &&
!(navigator.userAgent.indexOf("MSIE") >= 0))    return;
            FlycastRandom     = (new Date()).getTime() % 1000;
            document.write('<I' + 'FRAME
SRC="http://adex3.flycast.com/server/iframe/' + FlycastSite + '/' +
FlycastPage + '/' + FlycastRandom + '" scrolling="no" marginwidth=0
marginheight=0 frameborder=0 vspace=0 hspace=0 width=' + FlycastWidth + '
height=' + FlycastHeight + '>');
            document.write('<A target=_top
HREF="http://adex3.flycast.com/server/click/' + FlycastSite + '/' +
FlycastPage + '/' + FlycastRandom + '">');
            document.write('<I' + 'MG
SRC="http://adex3.flycast.com/server/ad/' + FlycastSite + '/' +
FlycastPage + '/' + FlycastRandom + '" border=0 width=' + FlycastWidth + '
height=' + FlycastHeight + '>');
            document.write('</A></IFRAME>');
      }
//-->
</SCRIPT>
<!--  End Flycast Ad Header Copyright ©1998 Flycast Communications. All
rights reserved. Patent Pending -->
</HEAD>
....
<BODY>

<SCRIPT SRC="http://js.flycast.com/FlycastUniversal.js"
LANGUAGE="JAVASCRIPT"></SCRIPT>
<SCRIPT LANGUAGE="JAVASCRIPT">
<!--
      if (FlycastLoaded)      FlycastDeliverAd();
      else                    FlycastNoScriptSrc();
//-->
</SCRIPT>
<NOSCRIPT>
<A target=_top
HREF="http://adex3.flycast.com/server/click/SITE_NAME/PAGE_NAME/123">
```

```
<IMG SRC="http://adex3.flycast.com/server/ad/SITE_NAME/PAGE_NAME/123"
border=0 width=468 height=60></A>
</NOSCRIPT>
<!--End Flycast Ad Copyright 1998 Flycast Communications. All rights
reserved. Patent Pending -->

```

Appendix B:

```
// Copyright 1998 Flycast Communications.
//
// Version 2.3

FlycastLoaded                  = true;
FlycastDeliverAdExecuted       = false;
FlycastFoundMSIE  = navigator.userAgent.indexOf("MSIE") >= 0;
FlycastFoundMSIE2 = navigator.userAgent.indexOf("MSIE2") >= 0 ||
navigator.userAgent.indexOf("MSIE 2") >= 0;
FlycastFoundMSIE3 = navigator.userAgent.indexOf("MSIE 3") >= 0;
FlycastFoundNN          = navigator.userAgent.indexOf("Mozilla/") >= 0 &&
!FlycastFoundMSIE;
FlycastFoundNN2         = navigator.userAgent.indexOf("Mozilla/2.") >= 0
&& !FlycastFoundMSIE;
FlycastFoundNN3         = navigator.userAgent.indexOf("Mozilla/3.") >= 0
&& !FlycastFoundMSIE;

function FlycastSuppressError() {
      window.location.reload();
      return true;
}
if (FlycastFoundNN3) {
      window.onerror    = FlycastSuppressError;
}

function FlycastDeliverAd () {
      if (FlycastDeliverAdExecuted) {
            return;
      }
      FlycastAdServer   = "http://adex3.flycast.com/server ";
      FlycastNow        = new Date();

      //concoct random number to defeat caching
      if (FlycastNewAd) {
            FlycastRandom     = FlycastNow.getTime();
            FlycastRandom     = FlycastRandom % 1000;
      }

      //provides info on site (for bidding) and random number (for cache-
defeating)
      FlycastSiteInfo         = "/" + FlycastSite + "/" + FlycastPage +
"/" + FlycastRandom;
      if (FlycastVersion >= 2.0) {
            FlycastSiteInfo   += "?" + FlycastKeyword;
      }

      if (FlycastFoundMSIE2) {
            document.write('<A HREF="' + FlycastAdServer + '/click' +
FlycastSiteInfo + '"><img src="' + FlycastAdServer + '/ad' +
FlycastSiteInfo + '" scrolling="no" marginwidth=0 marginheight=0
```

```
frameborder=0 vspace=0 hspace=0 width=' + FlycastWidth + ' height=' +
FlycastHeight + '></A>');
      }
      else if (FlycastFoundMSIE3)  {
            document.write('<IFRAME SRC="' + FlycastAdServer + '/iframe' +
FlycastSiteInfo + '" scrolling="no" marginwidth=0 marginheight=0
frameborder=0 vspace=0 hspace=0 width=' + FlycastWidth + ' height=' +
FlycastHeight + '></IFRAME>');
      }
      else {
            document.write('<S' + 'CRIPT SRC="' + FlycastAdServer + '/js'
+  FlycastSiteInfo + '" LANGUAGE="JAVASCRIPT"></S' + 'CRIPT>');
      }
      FlycastDeliverAdExecuted      = true;
}

//calling a function defined in a <S_CRIPT S_RC=..> from the HTML causes
NN3 to display the text between <S_CRIPT>..</S_CRIPT>
if (FlycastFoundNN3 && FlycastPrintTag) {
      FlycastDeliverAd();
}
```

I claim:

1) A system for displaying advertisements comprising:
a web browser which can retrieve files, interpret Javascript, and display web pages,
a first internet server which includes a web page that includes an advertising macro tag,
a second internet server which includes a Javascript file,
an advertisement server which provides advertisements in response to links from said browser,
said macro tag including a link to said second internet server,
said Javascript file including a link to said advertisement server,
whereby said Javascript file is executed and an advertisement is displayed each time said web browser accesses said web page.

2) The system recited in claims 1 wherein said macro tag has commands to access said advertisement server if said web browser does not have the capability of executing Javascript.

3) A system recited in claim 1 wherein said web pages contain HTML code.

4) A method of linking to an advertisement server from a web page,
including on said web page a macro tag with a link to a file on a command server, said file including Javascript commands which link to said advertisement server, whereby advertisements called for by said macro tag are displayed.

5) A system which includes browsers which link to a web pages, comprising
a command server which includes a command file with links to an advertisement server,
said web pages including macro tags which direct browsers to retrieve said command file on said command server,
whereby said browsers are direct to retrieve advertisements from said advertisement server when they access a web page.

6) A system for displaying an advertisements on a user's computer in response to commands in a macro tag on a web page which is accessed by an internet browser on said user's computer, said system comprising,
a first server with a file that contains a series of commands that can be executed by said browser,
a second server that contains said advertisement,
a link to said file in said macro tag,
a link to said second server in said file,
whereby when said macro tag is executed by said browser, said file is retrieved and said link in said file is executed to retrieve said advertisement and to display said advertisement on said user's computer.

7) The system recited in claim 6 wherein said file contains Javascript commands.

8) The system recited in claim 6 wherein said advertisement is a gif-image or a Java applet.

9) The system recited in claim 6 wherein said file contains Javascript.

10) In a system where user's access web pages using a browser,
a web page that includes a macro tag with a reference to a file on a first server,
whereby said browser links to said file when said web page is processed by said browser,
said file including a link to an advertisement server having an advertisement in a file,,
whereby said advertisement is displayed by said browser when said file is processed by said browser.

11) The system recited in claim 10 wherein said file contains Javascript.

12) The system recited in claim 10 wherein said macro tag contains a series of HTML statements.

13) The system recited in claim 11 wherein said macro tag contains a series of HTML statements.

14) The system recited in claim 11 wherein said macro tag includes a line to said advertisement server which is executed if said browser can not execute Javascript.

15) The system recited in claim 10 wherein said system determines the characteristics of said browser and executes instructions compatible with said browser's characteristics to display said advertisement.

Figure 1A Prior Art:

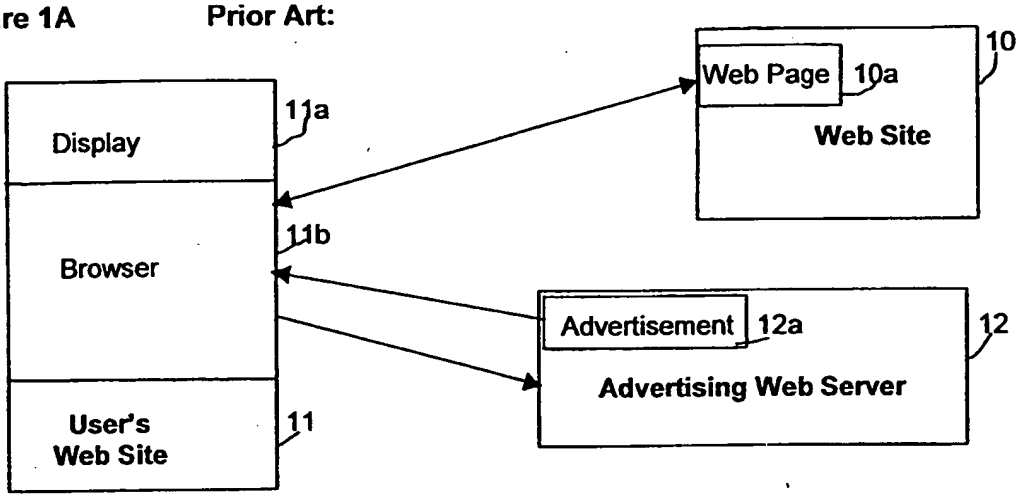


Figure 1B Prior Art

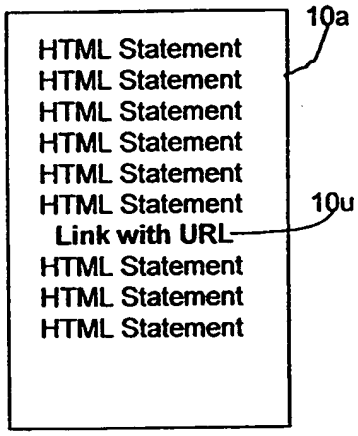


Figure 2:

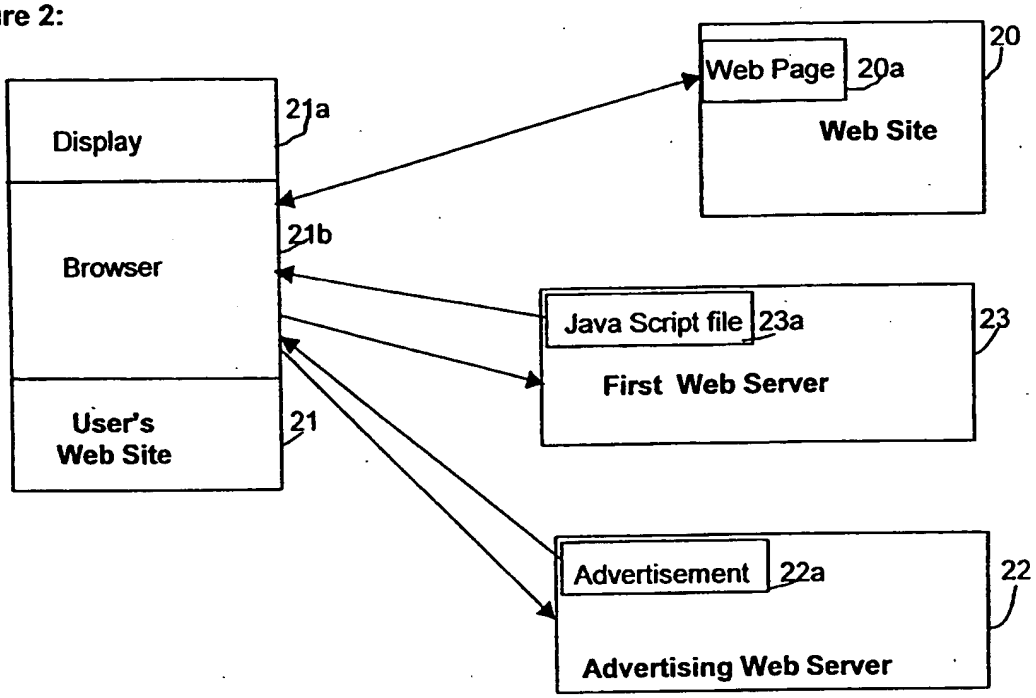

Web Page
20a
20
Web Site
Display
21a
Browser
21b
User's
Web Site
21
Java Script file
23a
23
First Web Server
Advertisement
22a
22
Advertising Web Server

Figure 3

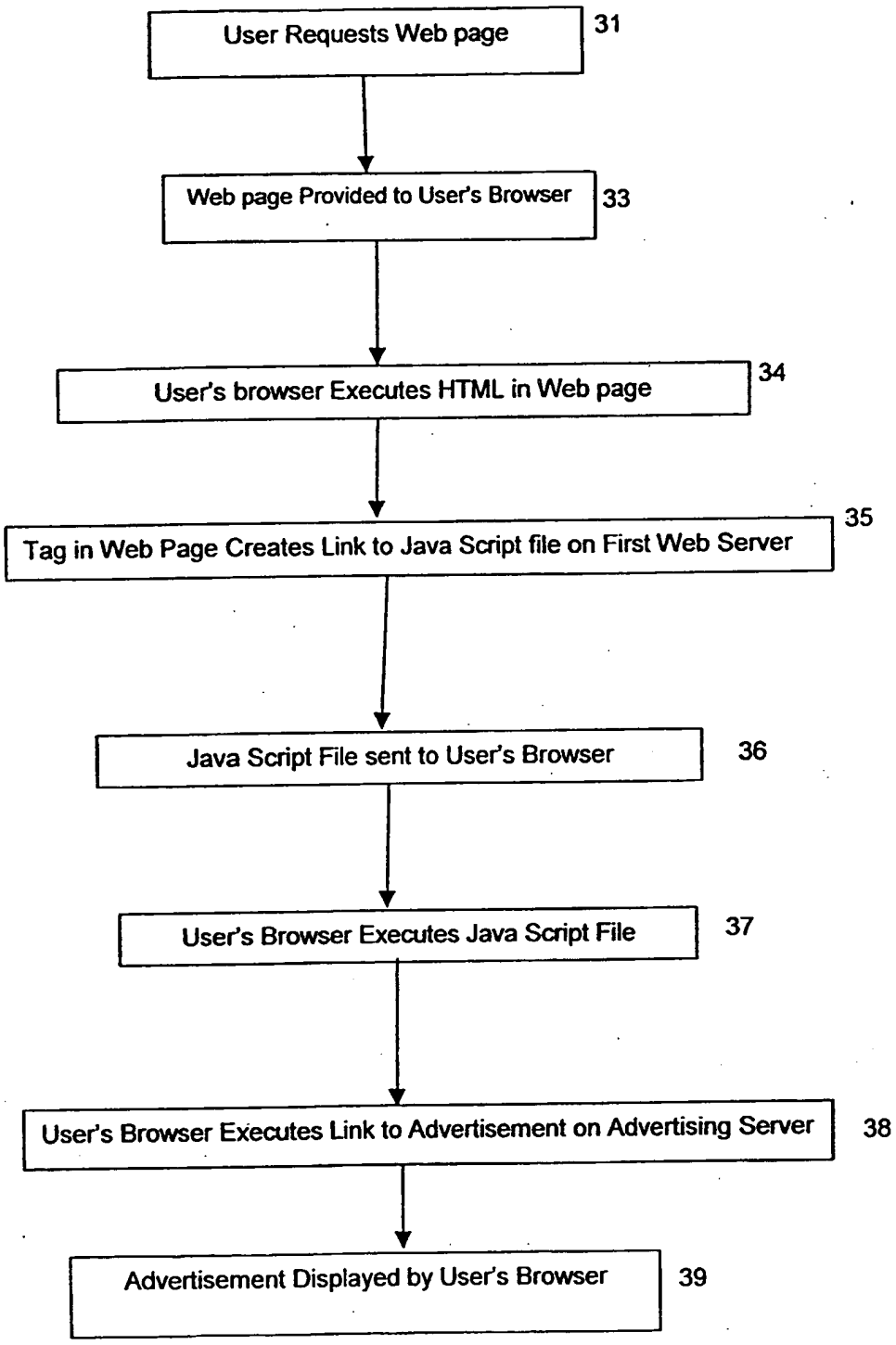

User Requests Web page
31
Web page Provided to User's Browser
33
User's browser Executes HTML in Web page
34
Tag in Web Page Creates Link to Java Script file on First Web Server
35
Java Script File sent to User's Browser
36
User's Browser Executes Java Script File
37
User's Browser Executes Link to Advertisement on Advertising Server
38
Advertisement Displayed by User's Browser
39

Figure 4A

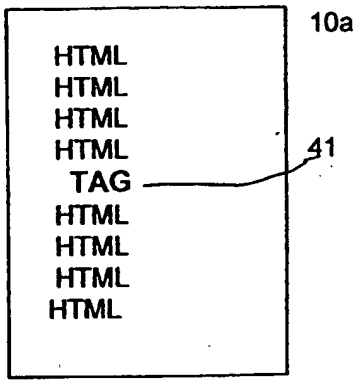


Figure 4B

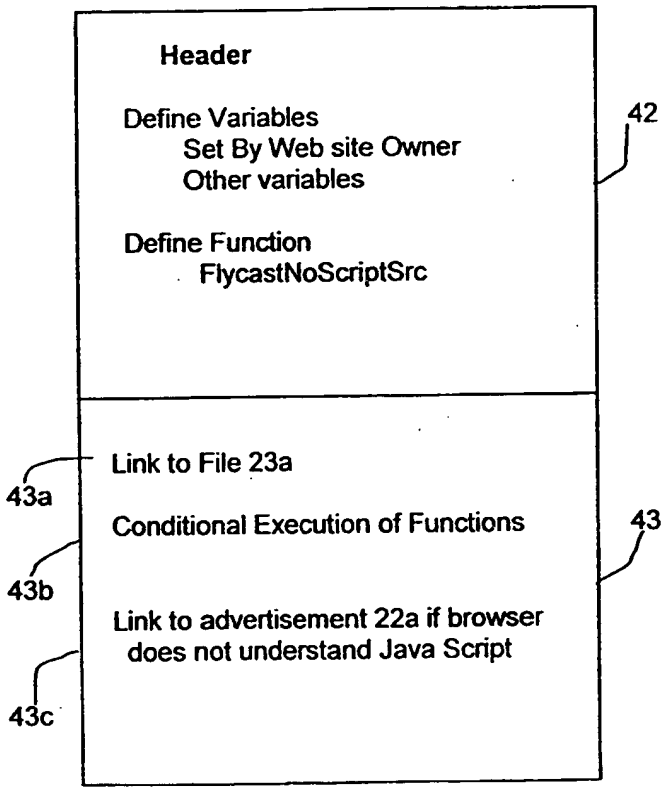


Figure 5

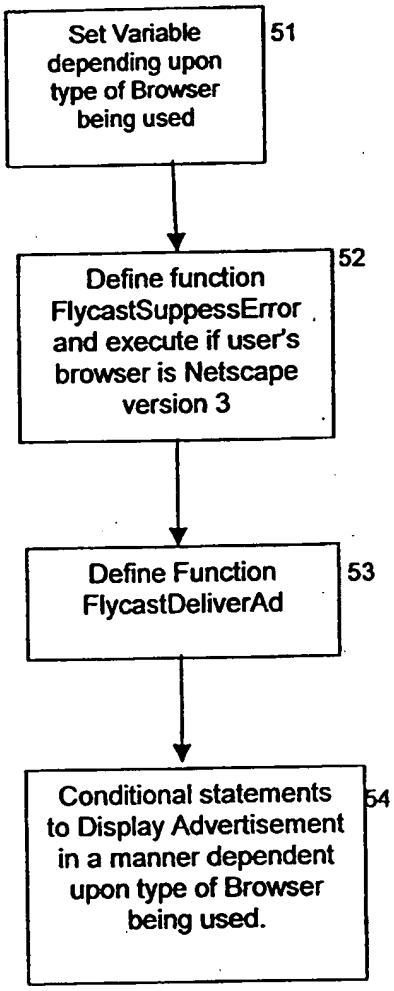
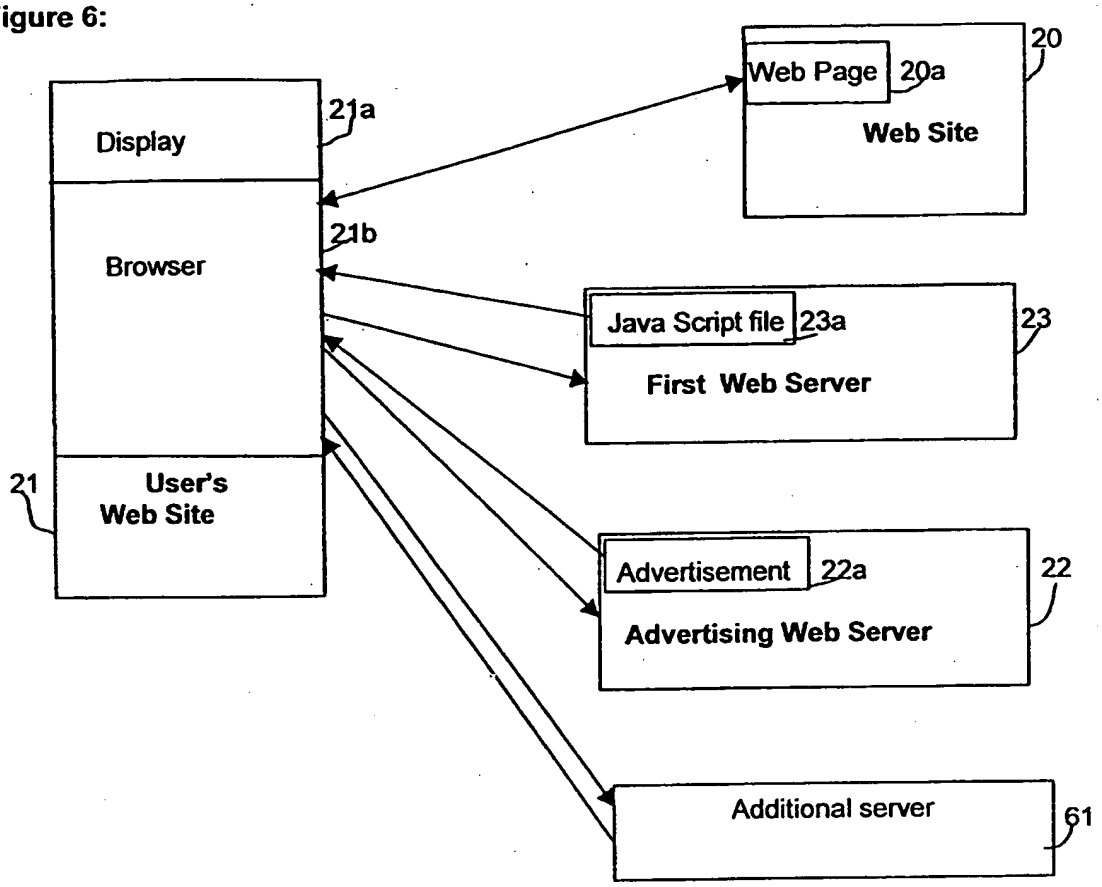

Set Variable depending upon type of Browser being used
51
Define function FlycastSuppessError and execute if user's browser is Netscape version 3
52
Define Function FlycastDeliverAd
53
Conditional statements to Display Advertisement in a manner dependent upon type of Browser being used.
54

Figure 6:


Display
21a
Browser
21b
21
User's
Web Site
Web Page
20a
Web Site
20
Java Script file
23a
First Web Server
23
Advertisement
22a
Advertising Web Server
22
Additional server
61